

WA1MA-B

WATTMETER

**1. GENERAL.** This procurement requires an in-line power measuring test set capable of measuring incident and reflected power levels in watts.

**2. CLASSIFICATION.** Type II, Class 3, Style EP, and Color R in accordance with MIL-T-28800 for shipboard applications. The power source requirements are not invoked.

**3. OPERATIONAL REQUIREMENTS.** The equipment shall be capable of measuring incident and reflected power within the minimum power levels, frequency ranges, and accuracies specified below.

**3.1 Power.** The power measurement capability shall be as specified in table I.

TABLE I. Frequency and Power

<u>Frequency Range</u>	<u>Incident and Reflected Power Ranges</u>
2 to 30 MHz	10W to 10 kW
25 to 520 MHz	1W to 1 kW

**3.1.1 Accuracy.**  $\pm 5\%$  of reading.

**3.2 Input and output connectors.** The equipment shall be equipped with a Type N(f) input connector and a Type N(m) output connector.

**3.3 Insertion VSWR.** 1.2 maximum.

**3.4 RF Signal Sampler.** The wattmeter shall be provided with an rf signal sampler

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as an accessory. The sampler shall provide a sample of the rf being measured for purposes of diverting a portion of the signal to a spectrum analyzer, frequency counter, oscilloscope or control device. The sampler shall be equipped with Type N(f) input and N(m) output connectors.

**3.4.1 Sampler power rating.** 10 kW.

**3.4.2 Sampler frequency range.** 20 to 520 MHz.

**3.4.3 Sampler insertion loss.** 0.1 dB maximum.

**3.4.4 Sampler coupling.** Adjustable over a 15 dB range for any frequency.

**3.4.5 Sampler VSWR.** 1.1 maximum.

**3.5 Transit case.** The Style P transit case shall store all components of the power measuring test set. The transit case shall be in compliance with the requirements in MIL-T-28800.

## **4. GENERAL REQUIREMENTS.**

**4.1 Weight.** 20 kg (44 lb) maximum.

**4.2 Lithium batteries.** Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.